UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,606	03/28/2006	Jo Klaveness	PN0368	6864

36335 7590 12/06/2010
GE HEALTHCARE, INC.
IP DEPARTMENT 101 CARNEGIE CENTER
PRINCETON, NJ 08540-6231

EXAMINER	
PERREIRA, MELISSA JEAN	

ART UNIT	PAPER NUMBER
1618	

MAIL DATE	DELIVERY MODE
12/06/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JO KLAVENESS, EDWIN JOHANNESEN, and
HELGE TOLLESHAUG

Appeal 2011-001361
Application 10/573,606
Technology Center 1600

Before ERIC GRIMES, DEMETRA J. MILLS, and JEFFREY N. FREDMAN, *Administrative Patent Judges*.

GRIMES, *Administrative Patent Judge*.

DECISION ON APPEAL[1]

This is an appeal under 35 U.S.C. § 134 involving claims related to imaging of colorectal cancer. The Examiner has rejected the claims as

---

[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

obvious in view of the prior art. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Claims 15-18, 20, 21, and 23-25 are on appeal. The claims have not been argued separately and therefore stand or fall together. 37 C.F.R. § 41.37(c)(1)(vii). Claim 25, the only independent claim, is representative and reads as follows:

25. A pharmaceutical composition for optical imaging for diagnosis of CRC, for follow up of progress of CRC development or for follow up of treatment of CRC, comprising:

(i) an optical imaging contrast agent with affinity for an abnormally expressed biological target associated with colorectal cancer (CRC), said contrast agent being of formula I:

V-L-R (I)

wherein:

V is one or more vector moieties having affinity for an abnormally expressed target in CRC, where said target is c-met, said vector moiety having a molecular weight below 4,500 Daltons;

L is a linker moiety or a bond, and

R is one or more reporter moieties detectable in optical imaging, wherein the contrast agent has a molecular weight below 7,000 Daltons and a water solubility of at least 1mg/ml at pH 7.4;

(ii) at least one pharmaceutically acceptable carrier or excipient.

The Examiner has rejected all of the claims on appeal as obvious in view of either Marten,[2] Klaveness,[3] and Waggoner[4] (Answer 3) or

---

[2] Marten et al., *Detection of Dysplastic Intestinal Adenomas Using Enzyme-Sensing Molecular Beacons in Mice,* 122(2) GASTROENTEROLOGY 406-434 (2002).

[3] Klaveness et al., US 6,610,269 B1, Aug. 26, 2003.

Weissleder,[5] Klaveness and Waggoner (Answer 6). The Examiner finds that both Marten and Weissleder disclose fluorescent poly-lysine probes that target cathepsin B for detecting colon cancer (Answer 3-4, 6-7). The Examiner finds that Klaveness discloses "contrast agents hav[ing] a targeting vector moiety which binds to receptors associated with angiogenesis (colorectal cancer), such as c-Met/hepatocyte growth factor receptor" (Answer 4) and that Waggoner discloses that "fluorescent labeling complexes/probes" should have molecular weights of 500 to 10000 Daltons (*id.* at 5). The Examiner concluded that these teachings would have made obvious the claimed composition (*id.* at 5-6, 7-8).

We adopt the Examiner's findings regarding the scope and content of the prior art (Answer 3-7) and agree with her conclusion that those teachings would have made obvious the composition of claim 25.

Appellants do not dispute most of the Examiner's findings, but contend that "claim 25 is limited to c-Met as the biological target associated with the optical imaging of CRC. Marten, Klaveness and Waggoner do not disclose, teach or suggest using c-Met. Hence, Appellants contend that no combination of those references could provide the subject matter of the present claims." (Appeal Br. 4.) Appellants argue that "the logical combination of those references teaches towards probes which target a different biological target, i.e., cathepsin B" (*id.*). Appellants rely on the

---

[4] Waggoner et al. US 6,008,373, Dec. 28, 1999.
[5] Weissleder et al., *In vivo imaging of tumors with protease-activated near-infrared fluorescent probes*, 17 NATURE BIOTECHNOLOGY 375-378 (1999).

same argument with respect to the combination of Weissleder, Klaveness, and Waggoner (*id.* at 5).

Appellants' arguments are not persuasive. As the Examiner has pointed out (Answer 4; Office action mailed Jan. 5, 2010, p. 3), Klaveness discloses "contrast agents in which the targeting vector binds to receptors associated with angiogenesis" (Klaveness, col. 1, ll. 13-14) and that "Receptors/targets associated with angiogenesis" (*id.* at col. 2, l. 8) include "hepatocyte growth factor receptor (c-met)" (*id.* at col. 2, l. 27). Thus, Appellants' position that the references do not disclose using c-Met as a biological target is not supported by the evidence. Appellants' argument that the references would have led a skilled worker to target cathepsin B is also unpersuasive, since Klaveness suggests targeting any of the angiogenesis-associated targets listed in its table, including c-Met.

SUMMARY

We affirm the rejection of claims 15-18, 20, 21, and 23-25 as obvious based on either Marten, Klaveness, and Waggoner or Weissleder, Klaveness, and Waggoner.

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

lp

GE HEALTHCARE, INC.
IP DEPARTMENT 101 CARNEGIE CENTER
PRINCETON NJ 08540-6231